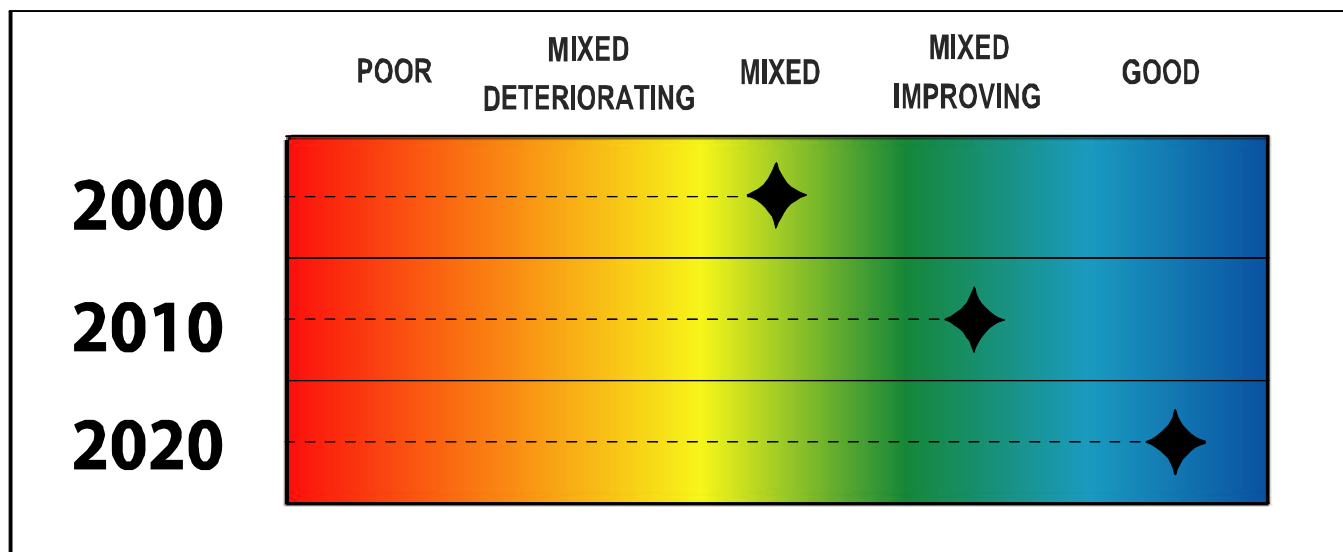


Subgoal 9

Are ecosystem stewardship activities common and undertaken by public and private organizations in communities around the basin?



Status

Each government, institution, organization, and individual within the Lake Michigan basin has a potential role in ecosystem stewardship; however, no single government, institution, organization, or individual has the ability to implement stewardship activities and achieve sustainability in the basin unilaterally. The watershed fact sheets in Appendix D is one tool created to encourage the recognition of the linkage between local watersheds and Lake Michigan. The current status of stewardship is mixed but will improve as more Lake Michigan watershed partnerships are formed.

Challenge

- To create a framework of goals and activities tailored to the watershed and community level while promoting Lake Michigan basin-wide interaction and partnerships.

The Importance of Partnerships

The past decade of ecosystem management in the basin has seen a profound shift from a top-down, command and control, government-dominated approach to a bottom-up, partnership-based, inclusive approach. This evolution is the manifestation of a number of developments, including changes in federal, state, and local relationships; local community empowerment; increased focus on local partners; and watershed-based institution building. If a sustainable Lake Michigan ecosystem is to be achieved, it falls to us to rearrange ourselves, our interest groups, and our governments into a new institutional framework—a framework that consists of existing organizations and governments “rafted” together as full partners in the pursuit of the LaMP goals.

Effective place-based partnerships are the result of the rafting of “full partners.” Full partnership implies moving beyond the stakeholder model, wherein citizen committees (stakeholder groups)

are briefed about agency plans and projects, to a model based on full collaboration in the definition of basin-wide goals and the sharing of resources to achieve these goals.

Lake Michigan's Watershed Academy

The challenge of translating Lake Michigan scale watershed data and planning to local governments divided by political boundaries is being undertaken through the development of the Lake Michigan Watershed Academy. In 2000 and 2002, the Lake Michigan Lakewide Management Plan highlighted the need to promote a series of dialogues with local decision makers about the status of their watersheds and their impact on Lake Michigan. Monitoring data and Geographic Information System presentations clearly show the interconnected aspects of the basin and the need to plan and cooperate across political boundaries in order to conserve habitat and sustain biodiversity.

The Lake Michigan Watershed Academy was launched in March 2003 when the Academy hosted a three-day event for staff, commissioners, and local officials from six regional planning commissions that operate on the shores of Lake Michigan. The purpose of the sessions was to introduce many of them to the watershed planning concept and provide an overview on how the approach can be implemented on the local level. The meeting was co-sponsored by Western Michigan University's Institute for Water Sciences. The participating regional planning commissions from the four Lake Michigan states include the Bay Lakes Regional Planning Commission, the Southeastern Wisconsin Regional Planning Commission, the Northeastern Illinois Regional Planning Commission, the Northwest Indiana Regional Planning Commission, West Michigan Regional Shoreline Development Commission, and the Northwest Michigan Regional Planning Commission.

The Academy meeting provided an opportunity to present perspectives from EPA Region 5, EPA headquarters, other federal agencies, tribal, state, and environmental perspectives on clean water issues and their relationship to watershed

Midwest Partnership for Watershed Management On-line Tools

The Midwest Partnership for Watershed Management was launched in 2002 by the Wisconsin DNR and EPA Region 5 Water Division to provide access to free, coherently organized, scientifically based watershed-based information for local officials and planners, natural resource managers, and the general public. The partnership aims to provide the maximum information and analytic tools to those levels of government closest to the actual problems. It offers both direct access to its own free web-based decision support tools and road maps to other sites where additional tools can be found. The effort has been working closely with the Lake Michigan Watershed Academy.

Many communities cannot afford even the most basic approach to, or initial screening of, their environmental problem and need cost effective, user friendly tools to assist them. Existing information and analytic tools, properly presented and freely accessible, can help meet this challenge. Watershed management data and decision support tools can allow informed screening and preliminary selection of alternatives, eliminating large amounts of preliminary "leg work".

More information is available at
www.epa.gov/waterspace

planning. The regional planning commissions then followed up with conferences in their respective areas tailored for their communities. In addition to two pilot conferences in South Bend, Indiana, and Kalamazoo, Michigan, conferences were held in Green Bay, Wisconsin, Traverse City, Michigan, Muskegon, Michigan, and Milwaukee, Wisconsin. Additional conferences in northwest Indiana and northeastern Illinois are planned for May and June of 2004.

The concept of a Lake Michigan Watershed Academy is to provide a "packaging and delivery system" that brings together the tools, data, and expertise of many federal, state, local, and tribal agencies as well as NGOs and environmental organizations to explore opportunities for new partnerships, thereby impacting the quality of the land use plans and partners in the Lake Michigan watershed.

Many training materials and tools have been developed including EPA's Watershed Academy

Web-Based Training

(www.epa.gov/OWOW/watershed/wacademy), Drinking Water Academy, American Water Works Association Source Water Training, Land Trust Alliance training materials, other existing videos and state and local training materials such as Michigan's Department of Environmental Quality's "Developing a Watershed Management Plan for Water Quality." EPA and the Great Lakes Commission are cooperating in the Lake Michigan on-line atlas <http://mapserver.glc.org/website/atlas/viewer.htm>

The Lake Michigan LaMP has also developed a "Habitat and Land Use Management Tool Box" that is a collection of hundreds of useful web sites annotated for detailed follow-up. It is available on CD-ROM from the EPA GLNPO and on the GLNPO website at www.epa.gov/glnpo/lakemich/lm02/index.html.

The Lake Michigan Watershed Academy Phase II began in Spring 2004 and will provide start up funding for efforts to implement projects resulting from the regional conference discussions. For more information contact Jason Navota at the Northeastern Illinois Planning Commission at jnavota@nipc.org.

EPA Utilizes Watersheds for Regulatory Focus

In December 2002 EPA's Assistant Administrator for Water issued a policy memorandum entitled: "Committing EPA's Water Program to Advancing the Watershed Approach." The memorandum not only reaffirmed EPA's commitment to the watershed approach, but also reenergized efforts to ensure that EPA as a whole fully integrates the watershed approach into program implementation. The memorandum established an EPA Watershed Management Council (WMC) to accelerate efforts to develop and issue National Pollutant Discharge Elimination System (NPDES) permits on a watershed basis. The EPA issued final guidance on watershed permitting in December 2003 (EPA 833-B-03-004).

Watershed-based NPDES permitting is an approach to developing NPDES permits for

multiple point sources within a defined geographic area. The primary difference between this approach and the current approach to permitting is the consideration of watershed goals and the impact of multiple pollutant sources and stressors, including nonpoint source contributions. Watershed-based permitting may encompass a variety of activities ranging from synchronizing permits within a basin to developing water-quality based effluent limits using a multiple discharger modeling analysis. The type of permitting activity will vary from watershed to watershed, depending on the unique circumstances in the watershed and the sources affecting watershed conditions. The ultimate goal of watershed-based NPDES permitting, however, is to develop and issue NPDES permits that consider the entire watershed, not just an individual point source discharger.

Although significant water quality improvements have been made during the past three decades, water quality problems remain. Many of the remaining problems involve complex mixtures of sources and impacts that require integrated, holistic solutions. Over the past decade, the number of sources subject to the NPDES program has increased almost tenfold. There is a pressing need for innovative and efficient solutions to permitting these point sources that will result in further water quality gains. As a mechanism to help integrate other water program activities and to target the most pressing environmental issues within a watershed, a watershed-based approach to NPDES permitting can serve as one innovative tool for achieving new efficiencies and environmental progress.

The Lake Michigan Forum

The Lake Michigan Forum provides input on the LaMP to EPA from representative stakeholders of the Lake Michigan basin. In recognition of the LaMP statement that every basin resident is a "Lake Michigan Manager," the forum seeks opportunities to foster ecosystem stewardship through multi-organizational initiatives and partnerships, looking for LaMP implementation opportunities beyond what can be achieved by government efforts.

As the nongovernmental component of the Lake Michigan LaMP, the Forum has a number of responsibilities, including

- Representing the diverse interests and geography of the Lake Michigan basin and creating a communication link between the forum members' constituents and the LaMP process
- Providing input to and review of LaMP updates and assisting in their completion and implementation
- Identifying targets of opportunities for demonstration projects relating to LaMP goals and recommendations
- Promoting the LaMP to the public and building a constituency for its implementation
- Serving as a forum for regional and watershed approaches to accomplish LaMP goals;
- Serving as a forum for identifying, discussing, and conveying critical/priority issues
- Serving as a conduit for public concerns and input to the LaMP process

The forum's membership consists of representatives of local governments, industry, environmental groups, sport fishing interests, academia, agriculture, Native American tribes, sewerage districts, and AOCs.

The forum holds public meetings quarterly at different locations around the Lake Michigan basin and, in partnership with EPA and Grand Valley State University, sponsors an education and outreach tour. Each summer since 1998, the ship *W.G. Jackson* has made its way around Lake Michigan on the Making Lake Michigan Great Tour, spreading the word about the Lake Michigan LaMP. The tour provides hands-on experience in water issues for the public aboard a research vessel operated by the Robert B. Annis Water Resources Institute of Grand Valley State University in Allendale, Michigan. The event includes cruises for students and the public, open houses, and community activities. Since it began, thousands of people have participated in the tour at 26 ports of call

around Lake Michigan. For more information, visit the forum web site at www.lkmichiganforum.org.

Lake Michigan Forum: Mona Lake Watershed Stewardship Assessment

In LaMP 2000, the Lake Michigan Forum put forth the concept of developing "Areas of Stewardship" around the lake. Following up on the concept, the watershed framework provides opportunities at the appropriate scale to develop stewardship.

During the spring and summer of 2003, the Lake Michigan Forum conducted an assessment of environmental stewardship in Michigan's Mona Lake watershed. The Mona Lake Watershed Stewardship Assessment process was aimed at identifying opportunities for enhancing environmental stewardship among leaders and the general public in the local watershed. The Lake Michigan Forum sees this ethic of stewardship - a commitment by government, businesses, other organizations, and individuals to restore and protect the ecosystem into the future - as essential in watersheds at the local level, in order to establish the sustained health of the Lake Michigan basin as a whole. The Forum hopes to conduct similar assessments in other watersheds around the basin in coming years, as a means of enhancing stewardship activities in local communities and focusing broader regional policy and resources in order to build stewardship capacity at the watershed level. To this end, the Forum has begun a stewardship assessment process in Baird Creek, a subwatershed in the Lower Fox River Area of Concern, near Green Bay, Wisconsin.

Working closely with many local partners in the small Mona Lake watershed located almost entirely within Muskegon County in western Michigan, the Lake Michigan Forum gathered existing environmental information and interviewed individuals living and working in the Mona Lake watershed. Using the resulting information, the Forum characterized

existing stewardship activities in the watershed and compared these against a set of elements that, if in place, would represent a “best-case stewardship scenario” for Lake Michigan watersheds. The Forum explored those stewardship elements in the Mona Lake watershed and developed an initial set of strategic opportunities for enhancing stewardship. This set of opportunities was further refined and developed through input from local partners, public focus groups, and additional analysis on the part of the Forum.

Recommendations from the report highlighted the following stewardship opportunities:

Existing Laws and Planning Efforts

- Convene units of government to consider a set of model ordinances and work through a process that will lead to widespread adoption.
- Train on how enforcement and implementation of these ordinances can impact the environmental health of the watershed.
- Integrate stormwater and soil erosion and sedimentation control programs into construction site inspections.
- Establish a framework for implementation that goes beyond the planning process.
- Use tax incentives and other policy tools to encourage local business owners to integrate environmental considerations into their regular decision-making processes.

Legacy Pollution and Remediation Efforts

- Continue to monitor existing remediation efforts and consent decrees for effectiveness.
- Identify remediation, restoration or pollution prevention opportunities eligible for funding through Supplemental Environmental Projects (SEPs).

Pollution Prevention and Waste Minimization

- Establish a Good Neighbor Dialogue with companies and community groups to address pollution prevention and other watershed-related issues.
- Encourage existing groups to incorporate

Waukegan, Illinois Selected as Environmental Justice Project Community

The Waukegan Cleanup and Revitalization project was one of 15 projects selected nationwide for the environmental justice demonstration program. Selection for this project officially designates Waukegan as an environmental justice community which provides national recognition and exposure, greater access to resources and status as a model for future projects.

Using 2000 census data, the city of Waukegan qualifies as an environmental justice community due to the city's high percentage of low-income residents and its high percentage of minority residents. The census showed that Waukegan's population is 44.8 percent Hispanic and 19.2 percent African-American. Waukegan has the highest increase in poverty rates in Lake County, rising to 13.9 percent in 1999 from 9.5 percent in 1989.

Project partners are the United Latino Coalition of Lake County, the city of Waukegan, the Waukegan Harbor Citizens Advisory Group, EPA and the Corps of Engineers. They have been working to ensure that all Waukegan communities can participate and share in the benefits of the revitalization process.

pollution prevention outreach into ongoing activities.

- Promote the adoption of environmental management systems (EMSs) that include provisions for pollution prevention among area businesses and agriculture.
- Encourage employees to identify opportunities for pollution prevention and reduced costs within their company.
- Assess the potential constraints to and opportunities created by organizing a waste exchange.
- Enable government units to fill leadership roles in pollution prevention.
- Develop a 'scorecard' of toxic releases within the Mona Lake watershed to distribute annually.

The Lake Michigan Forum presented final report and its findings to stakeholders in the Mona Lake Watershed in October, 2003. The Forum continues to work with local partners there to implement specific activities recommended in the assessment report, to which the Forum can bring its resources and expertise.

The full Mona Lake Stewardship report is available on the Lake Michigan Forum's website at: www.lkmichiganforum.org

Baird Creek Watershed Assessment

As part of a broader effort to conduct similar assessments as a model for analysis, planning, and design in other watersheds around the Lake Michigan Basin, the Forum has begun a stewardship assessment process in Baird Creek, a tributary to the lower Fox River AOC through the East River. Though this sub-watershed is rapidly urbanizing eastward from the city of Green Bay toward agricultural areas in the east, it nevertheless contains in its eastern portion an ecologically significant 350-acre wooded riparian greenway corridor within the city. The corridor provides bike and foot access from diversely populated urban concentrations to high quality natural resources and open space areas, and could serve as the basis for development of a model integrated shoreline pedestrian system in Green Bay. This greenway corridor and other opportunities in the Baird Creek watershed serve as a focal point for local discussion among public officials, non-government organizations, business interests, and the general public. Each of these stakeholder groups will provide valuable input in the Baird Creek watershed as the Forum's stewardship assessment work there moves forward.

State of Lake Michigan Conference

In November 2003, EPA, Lake Michigan Forum, and Grand Valley State University hosted the State of Lake Michigan conference in Muskegon, Michigan. The conference brought together over 300 attendees and presenters to discuss the status of the lake. Presentations from the conference inform and are often incorporated into the next LaMP publication.

Next Steps

- Determine the usefulness of Lake Michigan LaMP watershed fact sheets and exploration of other needed tools (see Appendix D)
- Continue the Lake Michigan Watershed Academy and support GIS and models workshops and small implementation grants to local communities
- Provide additional education and outreach materials on water conservation and source water protection
- Promote the habitat and land use management tool box
- On-line habitat atlas continues to build layers
- Hold FY 2005 State of Lake Michigan Conference
- Continue the research vessel boat tour – Making Lake Michigan Great